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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

EASTHOM, KARL D

ART UNIT PAPER NUMBER

2832

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,539

Applicant(s)

RAMARGE ET AL.

Examiner

Karl D Easthom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1.3.5-20 and 22-106 i is/are pending in the application.
- 4a) Of the above claim(s) 28-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-20,22-27 and 55-106 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 105-106 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 6,483,685 in view of Kester et al. Claims 1-2 of '685 disclose all the limitations of claims 105-106 except the reinforcing structure and explicit ratings and tests. Kester discloses the remaining elements of the claim at Figs. 9, and 11 with stack 12, 18, 12, and reinforcing structure 125, having epoxy resin and random fibers 126 as depicted. The 10kA, 10kV heavy duty rating allows the device to withstand a shorter pulse of 100kA, or "any size or rating" is disclosed at col. 4, lines 10-24, while the ANSI tests also disclose a 100kA test pulse, suggesting the modification where such a rating and reinforcing structure would have been obvious given the industry desire to meet the ANSI tests.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 95-96 and 103-104 are rejected under 35 U.S.C. 103(a) as obvious over Kester et al. in view of Suzuki et al. Kester discloses the claimed essentially as noted above except for the bonding. Suzuki discloses bonding adjacent rectifier stacks such as that of Kester to ensure a good electrical series connection, which would have been obvious given the same series connection of Kester and Donnola. Kester discloses the remaining elements of the claim at Figs. 9, and 11 with stack 12, 18, 12, and reinforcing structure 125, having epoxy resin and random fibers 126 as depicted. The 10kA, 10kV heavy duty rating allows the device to withstand a shorter pulse of 100kA, or "any size or rating" is disclosed at col. 4, lines 10-24, while the ANSI tests also disclose a 100kA test pulse, meeting the claims and claims 103-104, where such a rating would have been obvious given the desire to meet the ANSI tests.¹ In claim 96, see the fibers 125 at Fig. 9.

5. Claims 22-27, 66-93, and 99-100 are rejected under 35 U.S.C. 103(a) as obvious over Kester et al. in view of Donnola and Suzuki et al. Kester discloses the claimed essentially invention except for the pre-woven fabric and the bonding. Suzuki discloses bonding adjacent rectifier stacks such as that of Kester to ensure a good electrical series connection, which would have been obvious given the same series connection of Kester and Donnola. Donnola discloses the pre-woven fabric 310 for devices such as that of Kester to improve the reliability of such arrestors, at col. 3, where the type of fiber tape of Kester is stated as known at col. 3, lines 14-1

¹ The ANSI C62.11 standards cited at col. 9, lines 45-65 of Kester also include a 100kA short duration pulse test. See the Polymer Distribution articles cited, under the section Design Tests.

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8, and it would have been obvious to employ a fabric having a mesh size to allow gas to escape as noted at col. 5, lines 5-15. The rating of several tens of kA meets the 100kA pulse limitation at col. 1, lines 20-27, where they withstand rms voltage of 1kV for example and thus are able to handle more energy than that of a limited pulse duration, which would have been obvious to employ to suit the application of high current relief. Or the heavy duty 10kA, rated 10kV devices of Kester can also inherently handle such a pulse of given limited duration since the same type of device as that including the reinforcing structure as that of applicant is employed, since it can handle the 10kA at 10kV, or the 100kA test as noted, at longer durations, or same is obvious where Kester discloses the invention at col. 4, lines 10-25 as suitable for any size or rating, where such a rating would have been obvious given the desire to meet the ANSI tests which have a 100kA test, see also footnote 1 above. In claims 25-27, the matrix is circumferentially and vertically applied due to the fibrous tapes 24 (vertical) or 28 (vertical and circumferential) are preimpregnated with resins 22 or 25-27. See col. 6, lines 34-50, disclosing the preimpregnation of the fibrous tapes. Similar remarks apply to claims 66-93 where employing the fabric of Donnola for one of the tapes 24 or 28 means fibers will go perpendicular, parallel, and at an angle to the axis, predetermined with respect to the winding thereof. The fibers 126 are shown at random at Fig. 9 for claims related to that element.

6. Claims 1, 3, 5-20, 55-65, and 97-98 are rejected under 35 U.S.C. 103(a) as obvious over Kester et al. in view of Donnola, further in view of Schmidt. Kester with Donnola discloses the claimed invention essentially as noted above, except for only one disc. Schmidt discloses at least one", and Kester discloses any number" or "any size or rating" at col. 4, lines 10-35, so that it would have been obvious to limit the device to one varistor in order to make the rating smaller or

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to limit the size, where such a rating would have been obvious given the desire to meet the ANSI tests which have a 100kA test. That is, the electrical apparatus is disclosed at col. 4, lines 25-35 as "relat[ed] to the coating" and "not limited to any particular ... number". Consequently the number one is contemplated for the disks, where one of skill would contemplate using the coating on one disk, meeting the claim, since the number one is included in the three devices of fig. 1. Schmidt also discloses using only one disk in a similar apparatus depicted as having three elements, disclosing explicitly at least one block" at col. 1, lines 40-50, so that it would have been obvious to employ only one block especially where the invention of Kester et al. is directed to the coating. For claims 2-4, see col. 4, lines 15-20. For claims 5-9, col. 6, lines 34-50 disclose fibers in the tape as strands so that they have predetermined and uniform length less than the length of the tape, where the tape is substantially equal to the array length. In claim 7, the random fibers 126 meet the claim. In claim 12, the tape 28 is circumferential. In claims 18-19, see tape 24. In claim 15, the angle of tape 28 is "approximately" at 10 degrees where the term is broadly construed. Or, the fibers are at about 3 degrees with respect to the tape, where there is no frame of reference. The disc stack is bonded by the jackets or windings. For claims 97-98, see footnote 1 and other comments regarding Kester.

7. Claim 94, 101 and 102 are rejected under 35 U.S.C. 103(a) as obvious over Kester et al. in view of Schmidt. Kester discloses the invention as noted with respect to claims 95-96 above, except the number one. This is noted as above as obvious for the reasons noted, incorporated here.

8. Claims 95-96 and 103-106 are rejected under 35 U.S.C. 103(a) as obvious over Kester et al. in view of Remarge et al. Kester discloses the claimed essentially invention as noted above

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except for the bonding and Young's rating. Remarge at the abstract, and col. 2, lines 45-55, discloses employing the respective bonding to devices like that of Kester in order to dampen the forces upon a voltage discharge that occur so that such a modification would have been obvious.

9. Applicant's arguments filed 1/23/4 have been fully considered but they are moot or are not persuasive. Applicant argues that Suzuki teaches away from using epoxy. This is not material to the combination where Suzuki is disclosed for bonding. The motivation for the combination with Kester is as noted –to ensure a good series connection. As to Donnola, the same remarks apply since the argument is the same. As to the Kester not meeting the rating because 3 discs at 10KV imply a 3kV rating per disc, this is not correct, where any number, size or rating is disclosed at col. 4, the 10KV as an example. Thus, one disc could have such a rating. Also, the ANSI C62.11-1991 tests noted have the 100kA test pulse which the Kester products met, or it would have been obvious to make products meeting that test since it is a standard test, and the products have the same or similar structure. Applicant argues that the inventors solution is to provide a reinforcing structure, but this is employed in Kester or Kester as modified.

10. If Applicant can provide evidence in this file showing that the invention was owned by, or subject to an obligation of assignment to, the same entity as Remarge et al. at the time this invention was made, Remarge et al. may become disqualified as prior art through 35 U.S.C. 102(e), (f) or (g) in any rejection under 35 U.S.C. 103(a) in this application. Applicant may overcome the applied art either by a showing under 37 CFR 1.132 that the invention disclosed therein was derived from the inventor of this application, and is therefore, not the invention "by another", or by antedating the applied art under 37 CFR 1.131.

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11. Accordingly, with the evidence noted above supplied and with a terminal disclaimer filed as noted above, claims 105-106 would be objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Primarily, without Remarge, there is no suggestion or disclosure for the combination having the first and second Young's modulus as claimed.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is (571) 272-1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl D Easthom
Primary Examiner
Art Unit 2832

KDE